



PLANTING BARE ROOT RIPARIAN TREES AND SHRUBS

Riparian reforestation is practiced with varying degrees of success. The manner in which the plants are transplanted governs the survival rate for a riparian project. Deciduous trees and shrubs should be transplanted during their dormant periods, late fall and early spring in the Mid-Atlantic region.

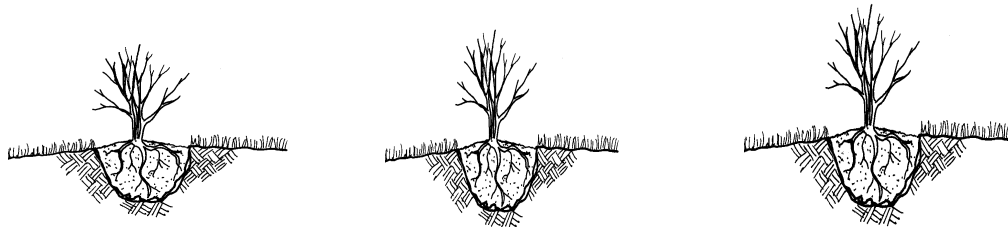
CARE BEFORE PLANTING: If you are unable to plant immediately after obtaining plants the following procedures should be followed:

- Prevent the seedling roots from drying out by watering them.
 - Store seedlings out of direct sunlight in a cool place.
- Soak seedlings in a bucket of water for a minimum of 30 minutes before planting.**
- Further protect seedlings by temporarily heeling them in soil.

PLANTING A BARE ROOT TREE: Deciduous bare root trees require a hole three times wider than the diameter of the roots and no deeper than the depth of the roots. Firmly pack the soil around the roots to eliminate air pockets (Figures 1-3).

PLANTING A BARE ROOT SHRUB: Deciduous bare root shrubs require a hole twice as wide as the root diameter and no deeper than the depth of the roots. Firmly pack the soil around the roots to eliminate air pockets (Figures 1-3).

Never transplant any seedling deeper than it was originally planted. Bare root trees and shrubs should have the roots spread out in the hole. Shovels are the preferred tool for planting deciduous trees and shrubs. A dibble bar or hodad used in the usual fashion does not provide a hole large enough to accommodate the extensive root systems on deciduous trees and shrubs. Insert either of these tools several times to increase the size of the hole, also loosen soil with the tool to avoid soil compaction. Soil compaction will interfere with root growth and available moisture.



WATERING NEWLY PLANTED RIPARIAN TREES AND SHRUBS

It is always beneficial to water newly planted trees and shrubs if resources are available. However, in many riparian locations this may not be necessary. The water table in riparian zones is normally quite high and the riparian soil types tend to retain soil moisture.

USE OF TREE SHELTERS

Deer browse is one of the major stumbling blocks to successful riparian projects. Tree shelters will prevent the loss of seedlings due to animal activities and to mowing accidents in more active urban areas. The advantages of tree shelter use outweigh the negative impacts they may have on plant development.

MATS

The use of vegetation mats will increase survival rates for seedlings subject to competition with grasses and other vegetation. Mats or mulch will increase the opportunity for moisture retention for the newly planted trees and shrubs. Although this will increase the cost of planting, the seedling losses to competition will be reduced and may justify the expense of the mats.

PLANTING COST ESTIMATES

ITEM	COST ESTIMATE
Seedlings	\$ 0.55- \$3.50 (species & size dependent)
Shelters	\$2.60 - \$3.50 (size & mfg. dependent)
Mats	\$ 0.45 - \$0.75 (source dependent)
Total cost/seedling	\$ 3.60 - \$7.75 / seedling
Total cost/ acre (435 seedlings/acre)*	\$ 1560 - \$3,375/ acre

* This number is derived from a 10 foot centers planting pattern.